

This listing of claims replaces all prior versions, and listings of claims in the instant application:

Listing of Claims:

1. (Currently Amended) A method for presenting a runtime environment component service by a first computer system to a second computer system over a communication network, said method being performed by said first computer system and comprising:

generating a user interface infrastructure, on said first computer system, to receive graphic user interface events from a lightweight component on said second computer system and to send remote graphic user interface commands to said lightweight component on said second computer system, wherein said remote graphic user interface commands are used in generating a user interface on said second computer system for a user of said runtime environment component service on said first computer system

wherein said generating comprises:

receiving a call to a create bean window method of a bean service object executing on said first computer system from a bean object of said lightweight component executing on said second computer system; and

calling an initialize method by said bean service object to create a bean window object on said first computer system; and

using said user interface infrastructure to initialize said runtime environment component service on said first computer system wherein said using comprises:

calling, by said bean service object, a create instance method in an application programming

interface of a client factory object of said
lightweight component;

initializing a remote frame window object in
said lightweight component by said client factory
object executing on said second computer system; and

further wherein said runtime environment
component service sends graphic user interface
commands to said user interface infrastructure
on said first computer system;

~~wherein~~ said second computer system
comprises a client device; and

said first computer system comprises a
server device.

2. (Currently Amended) The method of Claim 1 further
comprising:

receiving, by said bean window object in said user
interface infrastructure, a remote input action event via
said communication network, said remote input action event
being generated in said second computer system by said
lightweight component corresponding to said runtime
environment component service on said first computer
system.

3. (Currently Amended) The method of Claim 2 further
comprising:

transmitting an input event from said bean window
object to an application in said runtime environment
component service ~~by said user interface infrastructure~~ in
response to said remote input action event.

4. (Currently Amended) The method of Claim 3 further
comprising:

processing said input event by said application in
said runtime environment component service.

5. (Currently Amended) The method of Claim 4 further
comprising:

generating a graphic user interface command to said
~~user interface infrastructure~~ bean window object by said
application in said runtime environment component service.

6. (Currently Amended) The method of Claim 5 further
comprising:

transmitting a remote graphic user interface command
from said bean window object to said remote frame window
in said lightweight component by ~~said graphic user~~
~~interface infrastructure~~ in response to said graphic user
interface command.

7. (Currently Amended) A method for presenting a runtime
environment component service by a first computer system to a
second computer system over a communication network, said
method being performed by said first computer system and
comprising:

receiving a remote input action command, ~~for~~ by a
bean window object in a runtime environment component
service on said first computer system, via said
communication network, said remote input action command
being generated in said second computer system by a remote
frame window object in a lightweight component
corresponding to said runtime environment component
service on said first computer system;

transmitting a local input action command from said
bean window object to an application in said runtime
environment component service in response to said remote
input action command;

processing said local input action command by said application in said runtime environment component service; generating a local output command by said application in said runtime environment component service ~~for a graphical user interface infrastructure to said bean window object~~ on said first computer system; and

transmitting a remote output command from said bean window object to said remote frame window in said lightweight component in response to said local output command wherein said remote output command is used in generating a user interface on said second computer system for a user of said runtime environment component service on said first computer system and further wherein said second computer system comprises a client device and said first computer system comprises a server device.

8. (Currently Amended) The method of Claim 7 wherein said application in said runtime environment component service is in an office application suite.

9. (Cancelled).

10. (Cancelled).

11. (Cancelled).

12. (Cancelled).

13. (Cancelled).

14. (Cancelled).

15. (Cancelled).

16. (Cancelled).

17. (Cancelled).

18. (Cancelled).

19. (Cancelled).

20. (Cancelled).

21. (Cancelled).

22. (Cancelled).

23. (Cancelled).

24. (Withdrawn) A computer program product comprising
computer code comprising:

- a remote frame window class comprising:
- a remote output device interface; and
- a remote frame window interface.

25. (Withdrawn) The computer program product of Claim 24
wherein said computer code further comprises:

- a bean frame class comprising a frame interface.

26. (Withdrawn) The computer program product of Claim 24
wherein said computer code further comprises:

- a bean window class comprising:
 - an event handler interface; and
 - an window peer interface.

27. (Withdrawn) The computer program product of Claim 24
wherein said computer code further comprises:

an abstract windowing toolkit.

28. (Currently Amended) A computer program product comprising computer code for a method for presenting a runtime environment component service by a first computer system to a second computer system over a communication network, said method being performed by said first computer system, said method comprising:

generating a user interface infrastructure, on said first computer system, to receive graphic user interface events from a lightweight component on said second computer system and to send remote graphic user interface commands to said lightweight component on said second computer system, wherein said remote graphic user interface commands are used in generating a user interface on said second computer system for a user of said runtime environment component service on said first computer system

wherein said generating comprises:

receiving a call to a create bean window method of a bean service object executing on said first computer system from a bean object of said lightweight component executing on said second computer system; and

calling an initialize method by said bean service object to create a bean window object on said first computer system; and

using said user interface infrastructure to initialize said runtime environment component service on said first computer system wherein said using comprises:

calling, by said bean service object, a create instance method in an application programming interface of a client factory object of said lightweight component;

initializing a remote frame window object in said lightweight component by said client factory object executing on said second computer system; and

further wherein said runtime environment component service sends graphic user interface commands to said user interface infrastructure on said first computer system;

~~wherein~~ said second computer system comprises a client device; and

said first computer system comprises a server device.

29. (Currently Amended) A computer program product comprising computer code for a method for presenting a runtime environment component service by a first computer system to a second computer system over a communication network, said method being performed by said first computer system and comprising:

receiving a remote input action command, ~~for~~ by a bean window object in a runtime environment component service on said first computer system, via said communication network, said remote input action command being generated in said second computer system by a remote frame window object in a lightweight component corresponding to said runtime environment component service on said first computer system;

transmitting a local input action command from said bean window object to an application in said runtime environment component service in response to said remote input action command;

processing said local input action command by said application in said runtime environment component service;

generating a local output command by said application in said runtime environment component service ~~for a~~

~~graphical user interface infrastructure to said bean~~
window object on said first computer system; and

transmitting a remote output command from said bean
window object to said remote frame window in said
lightweight component in response to said local output
command wherein said remote output command is used in
generating a user interface on said second computer system
for a user of said runtime environment component service
on said first computer system and further wherein said
second computer system comprises a client device and said
first computer system comprises a server device.

30. (New) The method of Claim 1 wherein said generating
comprises:

calling an initialize method, by said bean service
object, to create a bean frame object on said first
computer system.

31. (New) The method of Claim 30 further comprising:
receiving, by said bean frame object, a load document
command from said bean object of said lightweight
component.

32. (New) The method of Claim 31 further comprising:
calling, by said bean frame object in response to
said load document command, an initialize method to
initialize a window for an application in said runtime
environment component service.

33. (New) The method of Claim 32 further comprising:
calling, by said bean frame object, a load URL method
in said application to load said document in said
application.

34. (New) A method for presenting a runtime environment component service by a first computer system to a second computer system over a communication network, said method being performed by said first computer system and comprising:

generating a user interface infrastructure, on said first computer system, to receive graphic user interface events from a lightweight component on said second computer system and to send remote graphic user interface commands to said lightweight component on said second computer system, wherein said remote graphic user interface commands are used in generating a user interface on said second computer system for a user of said runtime environment component service on said first computer system,

wherein said generating comprises:

receiving a call to a create bean window method of a bean service object executing on said first computer system from a bean object of said lightweight component executing on said second computer system;

calling an initialize method by said bean service object to create a bean window object on said first computer system; and

calling an initialize method, by said bean service object, to create a bean frame object on said first computer system;

using said user interface infrastructure to initialize said runtime environment component service on said first computer system wherein said using comprises:

calling, by said bean service object, a create instance method in an application programming interface of a client factory object of said lightweight component;

initializing a remote frame window object in said lightweight component by said client factory object executing on said second computer system; and

further wherein said runtime environment component service sends graphic user interface commands to said user interface infrastructure on said first computer system;

said second computer system comprises a client device; and

said first computer system comprises a server device;

calling an initialize method, by said bean service object, to create a bean frame object on said first computer system;

receiving, by said bean frame object, a load document command from said bean object of said lightweight component;

calling, by said bean frame object in response to said load document command, an initialize method to initialize a window for an application in said runtime environment component service on said first computer system;

calling, by said bean frame object, load URL method in said application to load said document in said application; and

receiving, by said bean window object in said user interface infrastructure, a remote input action event via said communication network, said remote input action event being generated in said second computer system by said lightweight component corresponding to said runtime environment component service on said first computer system.